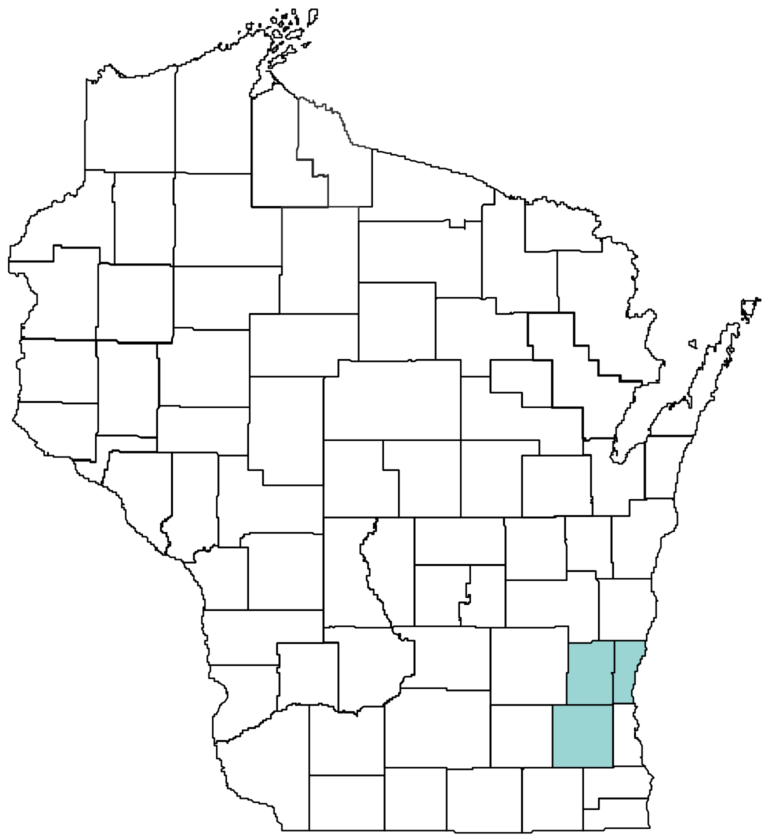
Workforce Development Area Profile

WOW Wisconsin

Washington, Ozaukee, and Waukesha Counties.

The labor market is a constant ebb and flow of supply and demand. Too little demand for workers creates too much supply and unemployment increases. But too little supply of workers means job vacancies and lack of employment growth.

Every Workforce Development Area in the state should anticipate a tight labor supply condition by the end of the next decade. Planners in each area must understand the unique set of employment characteristics in their region to development a strategy to meet a future where demand will exceed supply.



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Department of Workforce Development
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Industry employment and projections

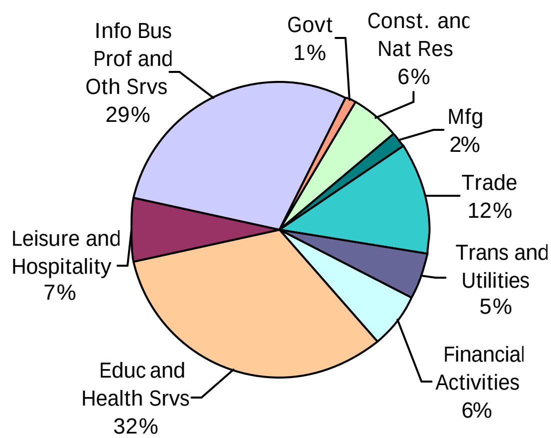
It is imperative for those involved in workforce and economic development to understand the economic and demographic directions of their communities. This profile summarizes current and projected industry, occupation, labor force and demographic information based upon requests and feedback from a diverse customer-base. Because the WOW WDA (Washington, Ozaukee and Waukesha counties) is so economically integrated with the Milwaukee WDA (Milwaukee County) much of the industry and occupational data in this profile is combined representing all four counties, otherwise known as the Milwaukee-Waukesha-West Allis Metropolitan Statistical Area.

The table at the bottom of the page lists the region's industry sector growth forecast. The total number of nonfarm jobs in the Milwaukee-WOW Workforce Development Areas is projected to increase 16 percent (+131,400 jobs) totaling just shy of one million jobs by 2012. The WOW and Milwaukee WDAs, combined, will likely maintain about 28 percent of Wisconsin's total nonfarm employment. The WOW WDA, alone, will comprise about 12 percent of the state total in 2012; same as its share of the total in 2002. The goods-producing sectors in the entire metropolitan economy will represent 19 percent of total employment by 2012, down from 21 percent in 2002. Services-providing industry sectors will increase from 79 percent of employment to 81 percent.

The Milwaukee-WOW rate of overall job growth, 15.7 percent, is projected to be faster than the state's growth of 13.3 percent and will be Wisconsin's fastest growing region. The region's faster job growth, roughly translated, indicates about one of every three new jobs in Wisconsin as of 2012 will be in this four-county area exemplifying how crucial this region is to the state's economy.

The bar graph on the bottom of page 2 shows no real dramatic changes in the region's employment rankings by industry sector as its three largest employing sectors are projected to hold their current rankings by 2012. The most notable point of the display is that although manufacturing will

Distribution of Job Growth by Industry Sectors in Milwaukee-WOW Area in Wisconsin: 2002 - 2012



Industry Projections for Milwaukee-WOW Workforce Development Area, 2002-2012

Industry Title	Employment 2002 Estimate	Employment 2012 Projected	Ten-year change Numeric	Ten-year change Percent
Total Non-farm Employment	833,200	964,300	131,100	15.7%
Construction/Mining/Natural Resources	33,750	40,990	7,240	21.5%
Manufacturing	143,860	146,270	2,410	1.7%
Fabricated Metal Products	23,470	24,020	550	2.3%
Machinery Mfg	24,140	24,980	840	3.5%
Electrical Equipment, Appliance, and Component Mfg	14,660	14,760	100	0.7%
Trade	125,710	141,170	15,460	12.3%
Food and Beverage Stores	16,830	18,010	1,180	7.0%
Transportation and Utilities (Including US Postal)	35,610	42,630	7,020	19.7%
Financial Activities	57,420	64,980	7,560	13.2%
Education and Health Services (Incldg state & local govt. ed. & hosp.)	162,870	206,240	43,370	26.6%
Ambulatory Health Care Services	30,540	42,850	12,310	40.3%
Hospitals (Including state & local govt.)	33,560	40,930	7,370	22.0%
Leisure and Hospitality	64,570	73,100	8,530	13.2%
Information/Prof Services/Other Services	169,000	207,230	38,230	22.6%
Government (Excluding USPS, state & local govt. ed. and hosp.)	40,420	41,700	1,280	3.2%

Source: WI DWD, Office of Economic Advisors, September 2004

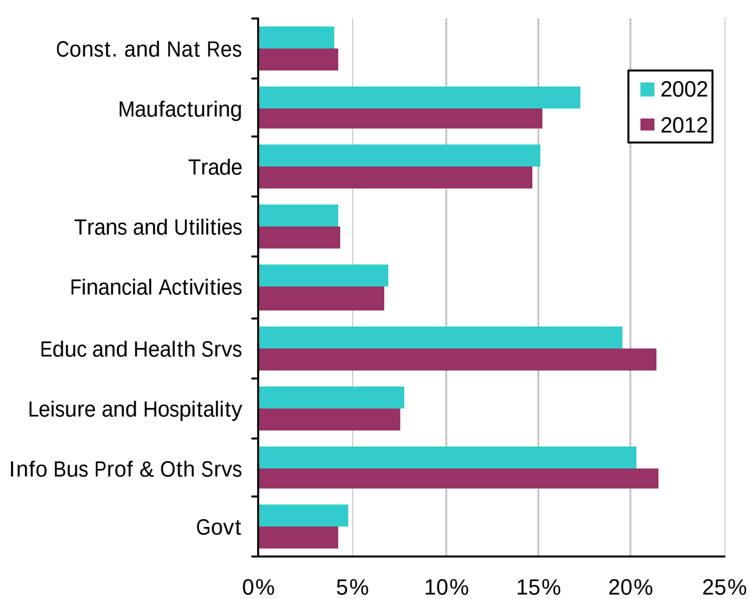
retain its prominence in the region, it is projected to lose share of the region's job base declining from 17 percent of the total to about 15 percent as of 2012. This does not mean that manufacturing will not grow in employment—it is projected to grow slightly by 1.7 percent by 2012. The fact is that other industries are going to grow much more quickly and robustly and will gain a higher share of the labor market in the coming years.

Education and health services; and information, professional, business and other services sector are both projected to pick up significant employment shares in the Milwaukee-WOW region. Sectors projected to lose regional employment share are manufacturing; total trade; financial activities; leisure and hospitality; and government employment. The reader should note that none of the sectors losing employment share are projected to decline in employment, which speaks more to the impact that its growth-sectors will have on local employment.

The pie-graph on page 1 distributes new job creation by industry between 2002 and 2012. Almost one out of every three new jobs in the region will be in the education and health services sector compared to one out of 50 in manufacturing. Thirty percent of new jobs will be in the information, professional, business and other services sector with the likelihood that the majority of this sector's employment to be centered in the professional and business services industry.

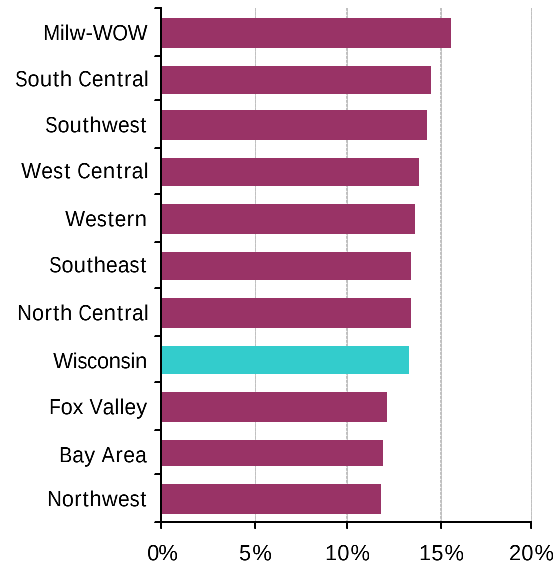
The size and quickness of this metropolitan area's job growth are skewed towards the services-providing industries,

Distribution of Jobs by Industry Sectors in Milwaukee-WOW Area in Wisconsin: 2002 - 2012



Source: WI DWD, Office of Economic Advisors, September 2004

Changes in Employment for Workforce Development Areas in Wisconsin: 2002 - 2012



Source: WI DWD, Office of Economic Advisors, Sept. 2004

just as they have been for decades. Education and health services employment will not only add the most jobs of any sector (+43,300 jobs), but will it also be the fastest growing (+27%). The sectors of information, professional, business and other services are projected to add 38,230 more jobs by 2012 for growth of about 23 percent. These sectors, along with education and health services, will have such an impact on the metro area labor market that if they were excluded from these projections, the local job market would increase by only 50,000 jobs for growth of ten percent instead of the 131,100-job growth that is projected. Construction, mining and natural resources employment has the highest, fastest growth projection of the good-producing sectors adding over 7,000 jobs (+21.5%), though this sector will continue to comprise only about four percent of the region's job-base. Depending upon the time of the year, construction industry employment is anywhere from 94 to 97 percent of this sector's total employment.

The metro area's industry sectors showing below average growth are manufacturing, 1.7 percent growth; government, 3.2 percent; wholesale and retail trade, 12.3 percent; financial activities, 13.2 percent; and leisure and hospitality, 13.2 percent. These slower growing sectors, combined, are projected to add approximately 35,000 jobs between 2002 and 2012 or about one of every four new jobs.

Employment and wages

One out of every eight jobs in Wisconsin are located in the WOW WDA and these jobs' wages profoundly influence the state's average wages. The WOW WDA, on an average annual basis, is the highest paying multi-county WDA in the state. It ranks behind Milwaukee County (Milwaukee WDA) though Waukesha County is the highest paying county in the state on an annual average basis. With the exception of two industry sectors, every sector in the WOW WDA pays higher than the state's average.

The overall annual average salary paid in the WOW WDA is $3,687 higher than the statewide average. There are a multitude of reasons for such a significant difference, but the most significant involves the workers themselves.

The salary differential is rooted in the *types* of workers employed in the region's industries. For example, two companies of the same industry, even in the same county, can have different overall occupational compositions commanding different overall wage levels. In short, this means that industry wage comparisons-region to region-may be more of a comment on occupations, rather than the industries themselves. The WOW WDA occupational composition is higher than average in those earning higher wages. The WOW WDA worker composition, which includes those who commute out of the WDA, is higher than average in employment in computer and mathematical; architecture and engineering; business and financial operations; healthcare practitioners and technical; and management occupations. These are higher than average paying occupational groups.

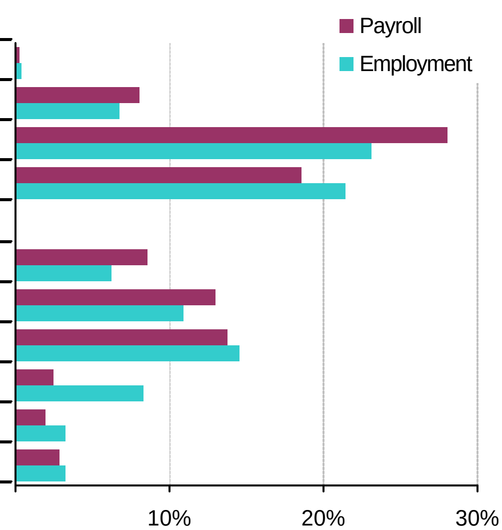
2003 Average Annual Wage by Industry Division in WOW WDA

	Average Annual Wage		Percent of	1-year
	Wisconsin	WOW	Wisconsin	% change
All Industries	$ 33,423	$37,110	111%	3.0%
Natural resources	$ 25,723	$31,991	124%	1.7%
Construction	$ 40,228	$44,907	112%	1.2%
Manufacturing	$ 42,013	$45,170	108%	3.9%
Trade, Transportation, Utilities	$ 28,896	$32,268	112%	2.2%
Information	$ 39,175	Not avail.	Not avail.	Not avail.
Financial activities	$ 42,946	$51,427	120%	7.2%
Professional & Business Services	$ 38,076	$43,829	115%	2.3%
Education & Health	$ 35,045	$35,227	101%	2.9%
Leisure & Hospitality	$ 12,002	$11,010	92%	1.9%
Other services	$ 19,710	$21,890	111%	1.7%
Public Admininistration	$ 35,689	$32,362	91%	4.9%

Source: WI DWD, Bureau of Workforce Information, Quarterly Census of Employment & Wages

2003 Employment and Wage Distribution by Industry in WOW WDA

	Employment		
	Annual average	1-year change	Total Payroll
Natural Resources	1,072	27	$ 34,293,891
Construction	20,768	188	$ 932,627,763
Manufacturing	71,364	-2,911	$ 3,223,541,715
Trade, Transportation, Utilities	66,251	-165	$ 2,137,801,120
Information	Suppressed	Not avail.	Suppressed
Financial Activities	19,262	1,255	$ 990,584,574
Professional & Business Services	34,081	1,260	$ 1,493,722,762
Education & Health	45,087	1,446	$ 1,588,267,805
Leisure & Hospitality	26,068	748	$ 287,012,458
Other services	9,973	-2	$ 218,304,179
Public Administration	10,023	-36	$ 324,366,628
Not assigned	Suppressed	Not Avail.	Suppressed
All Industries	309,976	1,810	11,503,201,837



Source: WI DWD, Bureau of Workforce Information, Quarterly Census of Employment & Wages

Significant industries

Top Five Industries in WOW WDA

Industry	March-2004 Establishments	March-2004 Employees	Numeric Employment Change 2003 - 2004	Numeric Employment Change 1999 - 2004
Food Services and Drinking Places	766	19,066	950	3,122
Educational Services	159	18,406	29	1,533
Professional, Scientific & Technical Services	1,592	15,731	1,025	1,323
Fabricated Metal Product Manufacturing	392	13,570	-71	-1,113
Merchant Wholesalers, Durable Goods	1,172	13,116	-286	-455

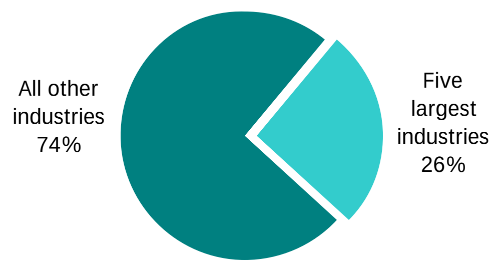
Source: DWD, Bureau of Workforce Information, Quarterly Census of Employment and Wages

This section of the profile examines the five largest industries in the WOW WDA and highlights their respective, significant occupational employment. The list is more industry-specific than the industry sector lists on pages 1 and 2, which uses a broader, aggregate classification.

The reader should keep in mind that these listed industries could be broken out into even more specific component industries, but due to the profile's brevity and its allowance for only a limited number of industries it would not reflect an adequate amount of industry diversity. Please contact the author if the reader would like more specific industries' rankings.

The WOW WDAs five largest industries as of March 2004 accounted for one out of every four regional jobs.

Share of jobs in top five industries in WOW WDA



I. Food Services and Drinking Places

This industry is usually one of the larger employers in virtually every region in Wisconsin; nationally, too. It is a component industry within the leisure and hospitality sector, which is projected to show average growth in the WOW WDA. The majority of employment in this industry is in full-service and fast food restaurants.

The majority of occupations in this industry are in food preparation and serving related occupations. Growth in this industry was the region's largest and fastest of these top 5 picks from 1999-2004 and its projected growth will prove this a significant industry in the regional economy. Many of this industry's jobs are entry-level and are paid commensurate to low-skilled employment. Employment durations can be very seasonal and the length of workweeks weigh heavily towards part-time schedules. Census data from 2000 estimate an average workweek of about 30 hours and a work-year of about 44 weeks for those working in this regional industry.

The fact that people continue to increase their spending on food outside of the home will contribute to the growth of this industry. The high-level of disposable income among WOW residents plus a high demand for these services and the region's dense multitude of these establishments will likely fuel employment growth.

Top 20 Occupations in Wisconsin in Food Services and Drinking Places Ranked by number of jobs projected in 2012

Combined Food Preparation and Serving Workers, Including Fast Food
Waiters and Waitresses
Bartenders
Cooks, Fast Food
Cooks, Restaurant
First-Line Supervisors/Managers of Food Preparation and Serving Workers
Dishwashers
Food Preparation Workers
Dining Room and Cafeteria Attendants and Bartender Helpers
Cooks, Short Order
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop
Food Service Managers
Cashiers
Chefs and Head Cooks
Driver/Sales Workers
Janitors and Cleaners, Except Maids and Housekeeping Cleaners
General and Operations Managers
Truck Drivers, Light or Delivery Services
Cooks, Institution and Cafeteria

Source: WI DWD, Office of Economic Advisors, Sept. 2004

II. Education Services

This industry includes both publicly- and privately-owned establishments though the majority of this sector's employment is in K-12 public school districts and technical college campuses, which are part of local government ownership. The University of Wisconsin campus in Waukesha is state government-owned. Parochial schools and private colleges such as Carroll College and Concordia University are also included in this industry. Total employment in educational services is expected to increase by 15 percent from 2002 to 2012 adding over 2,500 more jobs. Its larger occupational needs will be K-12 teachers and support staff.

The impetus for this sector's growth is rooted both demographically and economically. The WOW WDA has maintained a relatively stable school-aged population and this should continue despite an overall aging population. These three counties continue to see a great deal of in-migration, particularly family in-migration or of those who will begin families.

Economically, the current and projected changes in the area's job base have increased the demand for skills training and re-training at the region's excellent technical college campuses. Vocational training and other forms of adult education will likely maintain their appeal over the short– and medium-term as employers' occupational demands evolve.

Top 20 Occupations in Wisconsin in Education Services
Ranked by number of jobs projected in 2012

Elementary School Teachers, Except Special Education
Secondary School Teachers, Except Special and Vocational Education
Teacher Assistants
Middle School Teachers, Except Special and Vocational Education
Janitors and Cleaners, Except Maids and Housekeeping Cleaners
Secretaries, Except Legal, Medical, and Executive
Vocational Education Teachers, Postsecondary
Education Administrators, Elementary and Secondary School
Special Ed. Teachers, Preschool, Kindergarten, and Elementary School
Kindergarten Teachers, Except Special Education
Education Administrators, Postsecondary
Educational, Vocational, and School Counselors
Executive Secretaries and Administrative Assistants
Special Education Teachers, Secondary School
Vocational Education Teachers, Secondary School
Special Education Teachers, Middle School
Librarians
Business Teachers, Postsecondary
Bookkeeping, Accounting, and Auditing Clerks
Bus Drivers, School

Source: WI DWD, Office of Economic Advisors, Sept. 2004

III. Professional, Scientific & Technical Services

The WOW WDA is one of three regions to have this as a top five employing industry. The more detailed industries that make up this aggregate classification are varied and diverse. Seven of these detailed industries with 1,000 or more employment are (in descending order): computer systems design and related services; industrial design services; management, scientific, and technical consulting services; legal services; advertising and related services; accounting, tax preparation, bookkeeping, and payroll services; and scientific research and development services. These industries combine for over 14,000 jobs in the WOW WDA.

This broad industry is a prized one to economic developers mainly because it embraces newer economy ideals, oftentimes in support of the more 'traditional economy' employers. The reader will notice that the list of its largest occupations are dominated by what some refer to as "knowledge workers". They tend to be in the professional ranks, require formal education and command considerably higher than average salaries. These types of workers and employers are coveted not only for their direct economic impact, but also for their attractiveness to other potential employers, who rank an educated and skilled labor availability as one of their top reasons for choosing a location.

Top 20 Occupations in Wisconsin in
Professional, Scientific and Technical Services
Ranked by number of jobs projected in 2012

Computer Systems Analysts
Accountants and Auditors
Bookkeeping, Accounting, and Auditing Clerks
Lawyers
Computer Software Engineers, Applications
Executive Secretaries and Administrative Assistants
Office Clerks, General
Secretaries, Except Legal, Medical, and Executive
Computer Programmers
Computer Software Engineers, Systems Software
Receptionists and Information Clerks
Legal Secretaries
Graphic Designers
Management Analysts
First-Line Supervisors/Managers of Office & Administrative Support Workers
Computer Support Specialists
General and Operations Managers
Market Research Analysts
Customer Service Representatives
Veterinary Technologists and Technicians

Source: WI DWD, Office of Economic Advisors, Sept. 2004

IV. Fabricated Metal Product Manufacturing

This industry is a great example of why those in workforce development must help to maintain a skilled production workforce. Manufacturing sector employment has weathered many storms—business cycles, globalization, technological advances to name a few, and despite job loss, which has occurred for decades, it will still remain a prominent regional employer. This specific manufacturing industry lost over 1,100 jobs between 1999 and 2004.

Two large fabricated metal industries in the WOW WDA are machine shops, turned product and screw, nut, and bolt manufacturing; and the other is other fabricated metal product manufacturing. Forging and stamping companies also have a fairly significant employment presence in the region.

Manufacturing is generally an 'older' industry in reference to its workforce. The list of its largest occupations are almost exclusively tied directly to goods-production rather than other facets of manufacturing. While the number of jobs in manufacturing, including fabricated metal products, will not grow so fast or large, it does not negate the fact that more workers will be needed to replace those who will be leaving the manufacturing workforce. It is likely that many establishments in this industry and other manufacturing industries will be challenged to find enough adequately skilled labor, even in the face of stagnant <u>overall</u> employment growth.

Top 20 Occupations in Wisconsin in Fabricated Metal Product Manufacturing Ranked by number of jobs projected in 2012

Machinists
Cutting/Punching, & Press Mach. Setters, Operators, & Tenders, Mtl-Plastic
Team Assemblers
First-Line Supervisors/Managers of Production and Operating Workers
Welders, Cutters, Solderers, and Brazers
Computer-Controlled Machine Tool Operators, Metal and Plastic
Helpers--Production Workers
Grinding/Lapping/Polishing/Buffing Mach.Tool Setters/Oprs/Tenders, Mtl-Plstc
Maintenance and Repair Workers, General
Inspectors, Testers, Sorters, Samplers, and Weighers
Lathe & Turning Machine Tool Setters, Operators, & Tenders, Metal-Plastic
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders
Shipping, Receiving, and Traffic Clerks
General and Operations Managers
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic
Tool and Die Makers
Structural Metal Fabricators and Fitters
Laborers and Freight, Stock, and Material Movers, Hand
Industrial Truck and Tractor Operators
Drilling & Boring Mach. Tool Setters/Operators, & Tenders, Mtl-Plastic

Source: WI DWD, Office of Economic Advisors, Sept. 2004

V. Merchant Wholesalers, Durable Goods

The fact that a wholesale industry makes the top five list in the WOW WDA makes sense for the fact of this industry's close ties to manufacturers as both a customer and vendor. The largest component-industries in this category with 1,000 or more employment in the WDA are (in descending order): machinery, equipment, and supplies merchant wholesalers; professional and commercial equipment and supplies merchant wholesalers; electrical and electronic goods merchant wholesalers; hardware, and plumbing and heating equipment and supplies merchant wholesalers; and lumber and other construction materials merchant wholesalers.

The average wages paid in this industry run anywhere from upper $30,000 to almost $70,000 per year depending upon the specific type of wholesale trade. This is an above-average paying industry even at its lowest paying component industry. As stated in the previous section., occupational composition influences the overall, annual average wages. The top occupations in this industry run the gamut of occupational categories, but the largest contingent of employment in this industry, perhaps anywhere from 15 to 20 percent, is in the sales realm. These sales representatives typically earn considerably higher than average wages.

Top 20 Occupations in Wisconsin in Merchant Wholesalers, Durable Goods Ranked by number of jobs projected in 2012

Sales Reps, Wholesale & Manufacturing, Except Technl-Scientific Products
Sales Reps, Wholesale & Manufacturing, Technical & Scientific Products
Customer Service Representatives
Laborers and Freight, Stock, and Material Movers, Hand
Shipping, Receiving, and Traffic Clerks
Team Assemblers
Truck Drivers, Light or Delivery Services
Secretaries, Except Legal, Medical, and Executive
Bookkeeping, Accounting, and Auditing Clerks
Truck Drivers, Heavy and Tractor-Trailer
Office Clerks, General
General and Operations Managers
First-Line Supervisors/Managers of Non-Retail Sales Workers
Computer, Automated Teller, and Office Machine Repairers
Stock Clerks and Order Fillers
Farm Equipment Mechanics
Retail Salespersons
Parts Salespersons
First-Line Supervisors/Managers of Office & Administrative Support Workers
Industrial Truck and Tractor Operators

Source: WI DWD, Office of Economic Advisors, Sept. 2004

Occupation projections

Occupational Group Summary for Milwaukee-WOW Workforce Development Area

Occupational Groups	Estimated Employment 2002	Estimated Employment 2012	2002 - 2012 Change Numeric	2002 - 2012 Change Percent	Annual average New Jobs	Annual average Replacements	Annual average Total Openings	Average hourly wage	Annual average wage
Total, All Occupations	833,200	964,300	131,100	15.7%	13,110	19,710	32,820	$17.95	$37,330
Management, Business & Financial Operations	66,750	80,670	13,920	20.9%	1,390	1,220	2,610	$34.03	$70,788
Computer, Math, Architecture & Engineering	35,310	43,670	8,360	23.7%	840	630	1,470	$28.95	$60,214
Life & Social Sciences, Legal, Art & Entertaining	39,200	46,910	7,710	19.7%	770	750	1,520	$21.38	$44,468
Education, Training, & Library	42,850	51,380	8,530	19.9%	850	900	1,750	$20.68	$43,010
Healthcare Practitioners, Technicians & Support	66,520	88,050	21,530	32.4%	2,160	1,170	3,330	$20.95	$43,572
Food Preparation & Serving	60,340	68,010	7,670	12.7%	770	2,390	3,160	$8.65	$17,990
Protective, Maintenance & Personal Care Service	68,040	83,130	15,090	22.2%	1,520	1,540	3,060	$11.71	$24,357
Sales and Related	79,650	91,140	11,490	14.4%	1,150	2,630	3,780	$16.75	$34,850
Office/Administrative Support	151,920	163,480	11,560	7.6%	1,160	3,460	4,620	$13.96	$29,040
Natural Resources, Mining & Construction	31,490	38,460	6,970	22.1%	700	630	1,330	$21.23	$44,153
Installation, Maintenance, Repair & Production	131,240	140,240	9,000	6.9%	900	3,100	4,000	$16.15	$33,585
Transportation/Material Moving	59,910	69,170	9,260	15.5%	930	1,300	2,230	$13.22	$27,500

Source: Wisconsin Department of Workforce Development, Office of Economic Advisors, September 2004

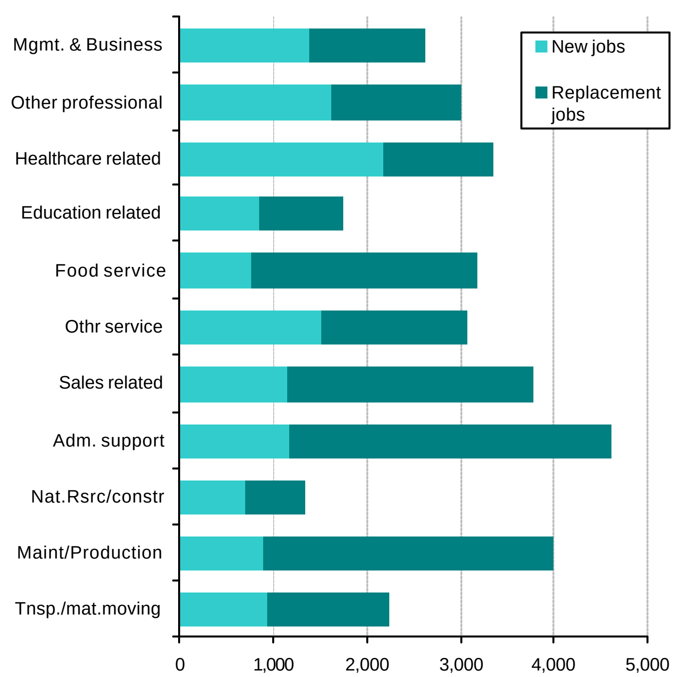
This page contains a more in-depth discussion of the Milwaukee and WOW WDAs occupational outlook. The above table presents the metro area's employment via broad occupational groups and their projected dynamics from 2002 to 2012.

Total occupational employment is projected to grow by 131,100 jobs by 2012. This equals the total industry employment growth mentioned earlier in the profile. The annual average number of new jobs, 13,110 new jobs per year, differs with the higher figure of annual average 'total openings' because total openings is a combination of both the total new jobs and replacement worker needs. Replacements are basically a "zero sum" figure in terms of job growth because replacement workers are not filling newly created jobs, but are filling existing, vacated positions. To a job seeker, it is probably irrelevant as to how a job opening becomes available, but to workforce developers this is a significant distinction.

The big picture of the future job market shows that about 60 percent of all job openings will be generated by the need for replacement workers. This pattern is not unique to the Milwaukee-WOW WDAs and the current job market likely reflects this as well. Most replacement needs are the result of a natural churn in the labor market of workers changing jobs, moving up career ladders, and worker retirement. Replacement worker needs due to retirement will become much more pervasive in the coming years.

The differences between the projected number of new jobs in occupations and their replacement needs are indicative of where the economy is heading reflecting both structural, economic and demographic changes. An occupation that is creating more new jobs than it has replacement needs shows an accelerating 'economic' need or increased demand for these workers. An occupation that shows a significantly higher need for replacements than newly created jobs signifies that the

Annual Openings by Occupation Groups in Milwaukee-WOW WDA



Source: WI DWD, Office of Economic Advisors, September 2004

Twelve Occupations with the Most Annual Openings from 2002-2012 in Milwaukee-WOW Workforce Development Area

Occupational Title	Estimated Employment 2002	Estimated Employment 2012	2002-2012 Change Numeric	2002-2012 Change Percent	Annual average New Jobs	Annual average Replacements	Annual average Total Openings	Typical Education or Training Path	Average Wage	Middle 50 Percent Hourly Wage Range
Retail Salespersons	24,080	27,140	3,060	12.7%	310	880	1,190	1 mo. or less trng on-the-job	$10.54	$7.37 - $11.46
Cashiers	18,010	20,490	2,480	13.8%	250	880	1,130	1 mo. or less trng on-the-job	$8.00	$6.93 - $8.79
Comb Food Prep/Server/Incl Fast	13,060	15,760	2,700	20.7%	270	570	840	1 mo. or less trng on-the-job	$7.74	$6.49 - $8.68
Registered Nurses	14,780	19,540	4,760	32.2%	480	310	790	Bachelor's or Assoc. degree**	$24.46	$20.94 - $27.52
Waiters/Waitresses	11,520	13,110	1,590	13.8%	160	590	750	1 mo. or less trng on-the-job	$7.66	$6.02 - $9.05
Office Clerks/General	16,960	18,960	2,000	11.8%	200	380	580	1 mo. or less trng on-the-job	$11.86	$9.19 - $13.79
Janitors/Cleanrs Ex Maids/Hskpng	16,110	18,840	2,730	16.9%	270	310	580	1 mo. or less trng on-the-job	$10.14	$7.84 - $11.41
Labrs/Frght/Stock/Matrl Movrs/Hand	13,350	14,180	830	6.2%	80	440	520	1 mo. or less trng on-the-job	$11.03	$7.97 - $12.97
Nursing Aides/Orderlies/Attndnts	12,700	16,130	3,430	27.0%	340	170	510	1 mo. or less trng on-the-job	$10.60	$8.97 - $12.31
Customer Service Reps	13,280	16,240	2,960	22.3%	300	200	500	1-12 mo. training on-the-job	$14.86	$11.42 - $17.18
Sls Reps/Whlsl/Mfg/Ex Tech/Sci	10,670	12,780	2,110	19.8%	210	280	490	1-12 mo. training on-the-job	$27.31	$18.20 - $32.53
Receptionists/Info Clerks	7,930	10,270	2,340	29.5%	230	200	430	1 mo. or less trng on-the-job	$11.03	$8.98 - $12.97

Source: WI DWD, Office of Economic Advisors, September 2004 * may include classroom instruction ** depends on employer

occupation is a) more likely to be entry-level with a shorter–than-average job tenure, or b) is likely to be prominent in a slowly growing industry, yet is likely to have many of its older workers retiring thus creating openings for replacements.

Milwaukee-WOW's largest occupational group (broad category on previous page) will be workers in office and administrative support and 75 percent of its projected need will be for replacement workers. Installation, maintenance, repair and production workers will also continue to show a larger presence. Healthcare practitioners, technicians and support occupations show the largest percentage of their projected total openings from newly created jobs reflecting the projected large employment growth in the healthcare industry.

The table above lists specific occupations with the most projected annual openings in the Milwaukee-WOW WDAs. Generally, this list shows nothing new compared to previous projections as entry-level occupations with shorter tenures and high turnover have the most openings. The national list is likely similar. But the presence of registered nurses on this list is remarkable, not only because of the attention it receives as an occupation in dire need of more workers, but because of its fourth ranking on *this* list and it being the only listed occupation that absolutely requires post-secondary education.

The list of the region's fastest growing occupations (below) includes occupations, whose percentage change will be relatively large, though the number of jobs in these occupations may not necessarily become numerically large in spite of fast growth. For example, an additional 110 respiratory therapy technicians in the area by 2012 represents an increase of 48 percent, but the increase in these jobs will only push the total

Twelve Occupations with the Greatest Percent Change from 2002-2012 in Milwaukee-WOW Workforce Development Area

Occupational Title	Estimated Employment 2002	Estimated Employment 2012	2002-2012 Change Numeric	2002-2012 Change Percent	Annual average New Jobs	Annual average Replacements	Annual average Total Openings	Typical Education or Training Path	Average Wage	Middle 50 Percent Hourly Wage Range
Netw Systms/Data Comm Analysts	970	1,570	600	61.9%	60	10	70	Bachelor's degree	$26.86	$21.36 - $32.33
Medical Assts	1,890	3,030	1,140	60.3%	110	40	150	1-12 mos. training on-the-job	$13.19	$11.50 - $14.33
Physician Assistants	340	540	200	58.8%	20	10	30	Bachelor's degree	$32.43	$29.92 - $35.04
Medcl Records/Health Info Techs	1,230	1,920	690	56.1%	70	20	90	Associate degree	$13.51	$10.14 - $16.43
Comptr Soft Engnrs Systms Soft	1,020	1,580	560	54.9%	60	10	70	Bachelor's degree	$35.25	$26.67 - $42.21
Physical Therapist Aides	250	380	130	52.0%	10	0	10	1 mo. or less trng. on-the-job	$10.76	$8.56 - $12.67
Home Health Aides	4,130	6,250	2,120	51.3%	210	50	260	1 mo. or less trng. on-the-job	$9.72	$8.37 - $10.51
Social/Human Service Assts	2,510	3,750	1,240	49.4%	120	40	160	1-12 mos. training on-the-job	$12.63	$10.03 - $14.91
Personal and Home Care Aides	6,320	9,390	3,070	48.6%	310	100	410	1 mo. or less trng. on-the-job	$9.29	$8.53 - $10.25
Respiratory Therapy Techs	230	340	110	47.8%	10	0	10	Postsecondary vocational trng.	$17.69	$14.47 - $20.76
Personal Financial Advisors	720	1,060	340	47.2%	30	10	40	Bachelor's degree	$39.07	$18.24 - $50.16
Environmental Engineers	280	410	130	46.4%	10	10	20	Bachelor's degree	$32.48	$25.40 - $40.22

Source: WI DWD, Office of Economic Advisors, September 2004 * may include classroom instruction ** depends on employer to just over 340 of these workers; not a large occupation, but one that is quickly growing in response to need. One will notice that the majority of these fastest growing occupations are related to healthcare. Collectively, fast growing healthcare occupations will increase by 52 percent adding 7,500 jobs by 2012.

Education

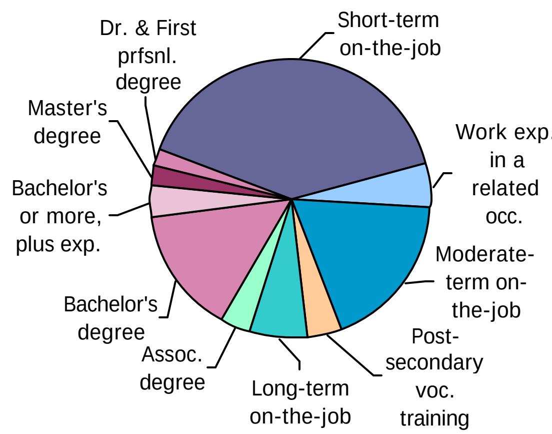
One of the more perpetuated myths about the future labor market is that the majority of the nation's (and region's) jobs will require a four-year college degree, minimum. This is a false notion evidenced by the table at the bottom of this page. While it is true that more jobs than currently will require a bachelor's degree or higher by 2012, the fact remains that most occupations and at least 58 percent of the region's total job openings will only require short- or moderate-term on the job training. Job openings requiring a bachelor's degree or higher will comprise about 23 percent of total openings. Compared to the statewide average, the Milwaukee-WOW region's share of total job openings requiring a bachelor's degree or higher education is a bit higher than state average. This is likely due to the metro area's higher than average portion of professional employment, which generally requires post-secondary educational attainment.

An irrefutable fact is the positive correlation between higher wages and higher educational attainment. More education does not guarantee higher wages, but it does afford more opportunity to work in higher paying occupations. Many of these opportunities will be in newly created jobs in response to the labor market's evolving needs as opposed to being replacement needs.

From an economic development point of view, well-established and newer industries are either utilizing or are essentially based upon creating or implementing new technologies. In fact, one would be hard pressed to name a single industry that has not embraced some form of technological innovation in the name of an improved productivity and efficiency. These technological changes not only require educated and skilled workers, but require at least a modicum of workers with highly specific, intricate education. Employers base their location or expansion decisions upon the pool of available workers with the right skills and education. The availability of a skilled and educated workforce bind economic and workforce development because both are fundamental in attracting and retaining employers. Knowing the education and skills required, today, for tomorrow's jobs will help workers and employers make the best decisions for themselves.

The complete list of occupational projections can be found at http://dwd.wisconsin.gov/oea/wda/projections/milwow.htm.

Distribution of Total Openings in Milwaukee-WOW WDA by Training Path



Typical Education or Training Path* for Jobs in Milwaukee-WOW Workforce Development Area

Education or Training	Number of Occupations	Estimated Employment 2002	Estimated Employment 2012	2002-2012 Change Numeric	2002-2012 Change Percent	Annual average New Jobs	Annual average Replace-ments	Annual average Total Openings	Distribution of Total Openings
Total	746	833,210	964,310	131,100	15.7%	13,140	19,730	32,870	100.0%
Associate degree	36	24,440	30,670	6,230	25.5%	630	430	1,060	3.2%
Bachelor's degree	108	116,120	142,710	26,590	22.9%	2,670	2,230	4,900	14.9%
Master's degree	37	17,340	20,850	3,510	20.2%	350	360	710	2.2%
First professional degree	16	8,630	10,870	2,240	26.0%	230	140	370	1.1%
Doctoral degree	40	5,300	6,920	1,620	30.6%	160	120	280	0.9%
Long-term on-the-job training	82	60,100	68,330	8,230	13.7%	830	1,320	2,150	6.5%
Moderate-term on-the-job training	168	181,690	201,710	20,020	11.0%	2,000	3,820	5,820	17.7%
Short-term on-the-job training	136	306,020	349,870	43,850	14.3%	4,380	8,940	13,320	40.5%
Bachelor's degree or more, plus work exp.	30	30,780	36,740	5,960	19.4%	600	570	1,170	3.6%
Work exp. in a related occupation	42	46,750	53,660	6,910	14.8%	690	990	1,680	5.1%
Postsecondary vocational training	51	36,040	41,980	5,940	16.5%	600	810	1,410	4.3%

* This provides a general indication of the education or training typically needed in occupations. There may be other pathways.

Source: WI DWD, Office of Economic Advisors, September 2004

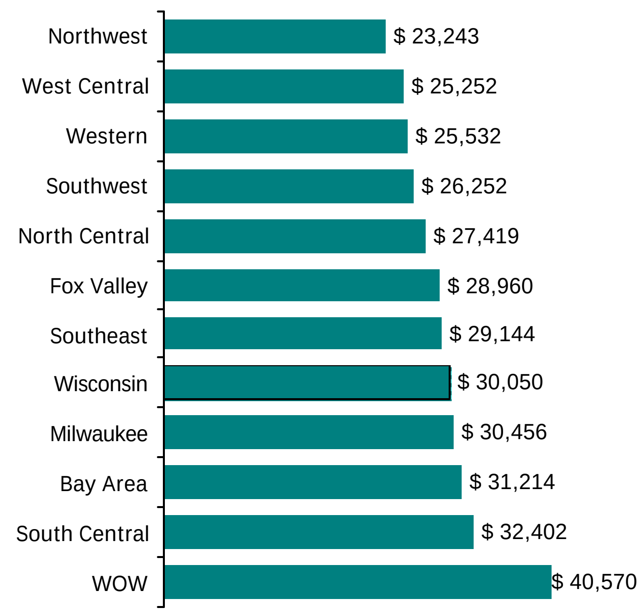
Total personal income

Total personal income is the sum of residential net wage and salary earnings; earnings from dividends, interest and rental property; and receipts from transfer payments. The majority of total personal income composition, on average, is job earnings. The smallest portion of income is typically transfer payments, which includes old-age retirement and veterans benefits, government-paid medical reimbursements, and income maintenance program payments.

The region's personal income is composed proportionately higher than average in wage earnings, 72 percent of total personal income versus the state's average of 68 percent. It is also a bit higher than average in income obtained via dividends, interest and rental income. The region's largest compositional difference is its low percentage of income obtained via transfer payments. These composed nine percent of the region's income compared to the statewide share of 14 percent. In fact, the WOW WDA shows the lowest per capita transfer payments of all WDAs.

The WOW WDA is by far the wealthiest region in Wisconsin with a per capita personal income (PCPI) of $40,570 in 2002 exceeding every other WDA, Wisconsin and the United States by thousands of dollars per person. Its PCPI is extraordinary to say the least, but understandable given the fact that Ozaukee and Waukesha

Per Capita Personal Income by WDA



Source: US Dept. of Commerce, Bureau of Economic Analysis

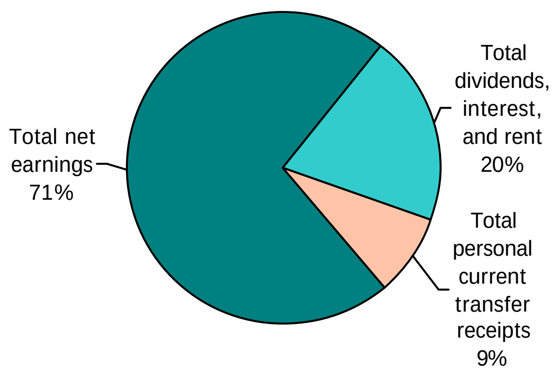
Total Personal Income in WOW Workforce Development Area

			% Change from 1997 to 2002		
	1997	**2002**	**WOW**	**Wisconsin**	**United States**
Population	541,982	575,030	6.1%	3.3%	5.6%
Total Personal Income (in thousands)	$18,329,509	$23,328,914	27.3%	26.6%	28.8%
Net Earnings	$13,138,588	$16,714,622	27.2%	27.6%	30.4%
Dividends, Interest, and Rental Income	$3,835,989	$4,622,100	20.5%	14.9%	18.4%
Transfer Receipts	$1,354,932	$1,992,192	47.0%	39.4%	35.8%
Income Maintenance	$45,478	$51,315	12.8%	29.1%	21.3%
Unemployment insurance benefit payments	$34,959	$102,738	193.9%	147.2%	166.1%
Retirement and other	$1,274,495	$1,838,139	44.2%	36.9%	34.4%
Per Capita Personal Income	$33,819	$40,570	20.0%	22.6%	22.0%
Per Capita Net Earnings	$24,242	$29,067	19.9%	23.5%	23.4%
Per Capita Dividends, Interest, and Rental Income	$7,078	$8,038	13.6%	11.3%	12.1%
Per Capita Transfer Receipts	$2,500	$3,465	38.6%	35.0%	28.6%
Total Employment (see glossary)	354,108	379,311	7.1%	5.0%	7.3%
Wage and salary jobs	304,241	330,528	8.6%	4.3%	5.9%
Number of non-farm proprietors	47,671	46,632	-2.2%	11.2%	16.0%
Average earnings per job	$32,987	$40,739	23.5%	21.0%	21.2%
Average wage & salary disbursements	$29,893	$35,724	19.5%	19.0%	21.1%
Average nonfarm proprietors income	$16,277	$24,838	52.6%	37.0%	24.7%

Source: Special tabulation by WI DWD, Office of Economic Advisors & US Dept. of Commerce, Bureau of Economic Analysis, May 2004 counties rank first and second highest in county PCPI, respectively, and Washington County ranks fourth highest.

The table on the previous page lists various WOW WDA income components and compares them to state

Major Components of Total Personal Income in 2002 in WOW Workforce Development Area



Source: Special tabulation by WI OEA & US BEA files

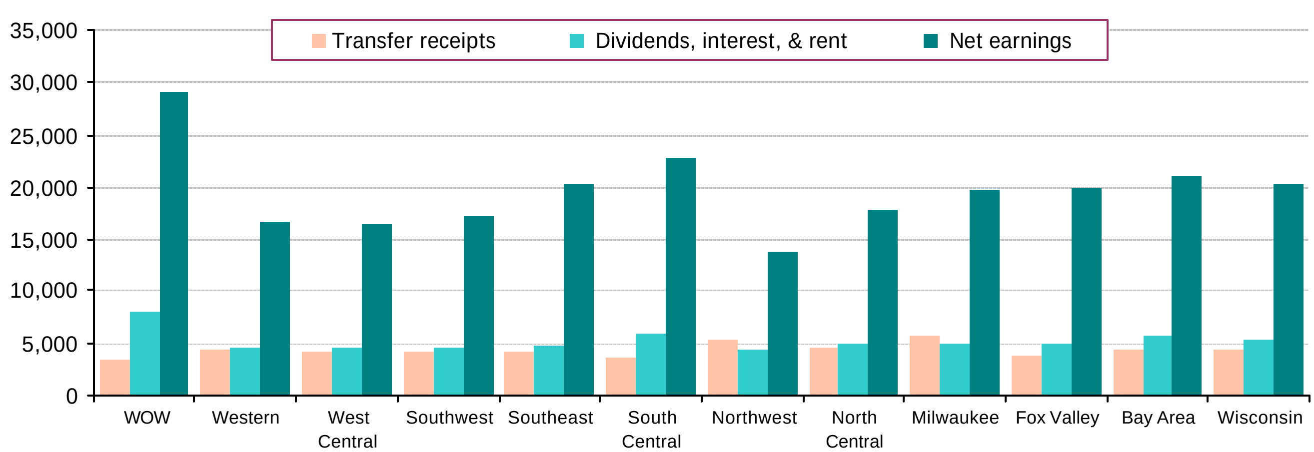
and national data and examines them over a five-year period. Worth noting is the fact that the region's total personal income outgrew the statewide rate and was just shy of matching the national rate of growth, but its per capita personal income growth rate was slower than both the state's and nation's.

The region's slower total income growth compared to its faster per capita growth is rooted in definitional issues. Total personal income growth measures total dollars, whereas the per capita income measurement adds another dimension measuring total dollars and dividing it by the total population, hence 'per capita'. Therefore, a measured change in a per capita figures not only accounts for a change in dollar amounts, but it also accounts for changes in population.

The WOW WDA PCPI growth from 1997 to 2002 was approximately two percentage points slower than both the state and nation. More specifically, its per capita net earnings (job wages) grew even more slowly—almost four percentage points slower. This is not a comment on economic weakness, but rather its population growth. The WOW counties have gained population at a faster rate than both the state and nation almost doubling the rate of these comparisons. It is likely that the rate of total population growth in WOW has exceeded its growth rate of wage earners. It is also likely that much of the population growth in WOW was higher than average in non-earners or those who would not normally contribute to the region's total personal income, namely children. There is probably a larger than average contingent of retirees, particularly in Washington and Ozaukee counties, obtaining income via transfer receipts and dividends, interest and rental income. Generally speaking, population growth in these counties has come at the expense of Milwaukee County.

The next section of this profile will discuss demographic issues within the WOW WDA focusing on its projected aging population. The relevance of an aging population and personal income is that it is likely that a greater share of future income will come from transfer payments, retirement, dividends, and less will come from job earnings. Change in income composition will not be drastic as job earnings will still compose the majority of the WDAs total personal income.

Per Capita Income by Major Components of Total Personal Income: 2002



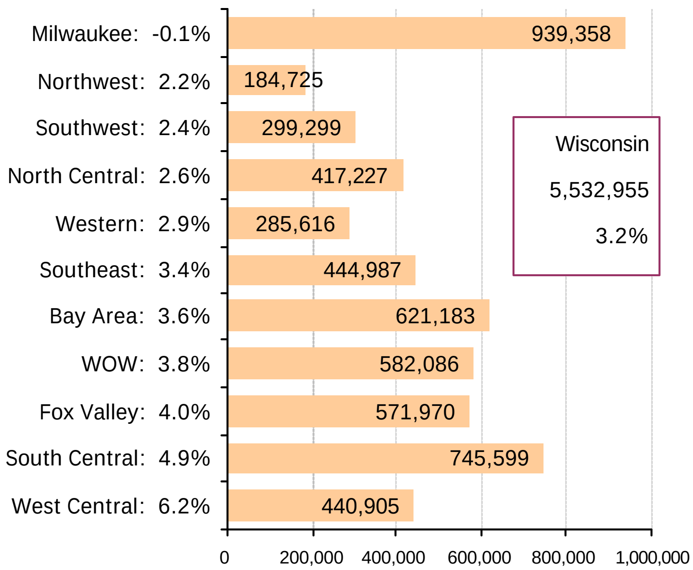
Source: Special tabulation by WI DWD, Office of Economic Advisors & US Dept. of Commerce, Bureau of Economic Analysis

Connecting the Elements

Population dynamics have always been key in workforce and economic development. This section focuses on how these dynamics comment on labor availability.

The WOW WDA population numbered just over 582,000 residents in 2004 representing about 10.5 percent of Wisconsin's population. The region has approximately 21,500

2004 WDA Population and Percent Change from 2000



Source: WI Dept. of Administration, Demorgraphic Services Center

more residents since the 2000 Census for growth of 3.8 percent. The region's population growth rate has been above average over the last four years.

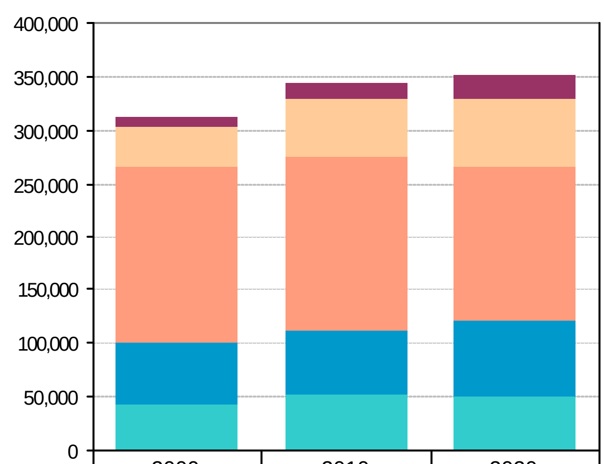
Population change is the net result of two occurrences, migration and natural change. A fundamental understanding of these occurrences trumps the simple rate of overall population change and its pluses and minuses. The region's net increase of 21,500 residents over the last four years was 9,450 via natural increase (more births than deaths) and the majority— 12,050 via net in-migration (more moved in than out). Current and forthcoming development endeavors, be they economic or workforce development, must have a keen eye on particular demographic features, and anticipated changes of the population. This is especially critical as it relates to an area's projected age characteristics and the likely effects of aging on consumer behavior and the workforce.

The WOW WDA population projections from 2005 to 2030 forecasts population growth close to 101,000 more residents (+17 percent). The region's projected growth is a bit faster than the statewide growth rate of 15 percent.

There has been much discussion of Wisconsin's aging population, which has also been a national issue, but it is likely to become a more salient one in the Midwest United States. Much of this discussion has been wrapped in the life stage movement of the historically large baby boomer population (those born between 1946 and 1964) compared to its two smaller, succeeding generations. To put the size of the boomer generation in perspective, currently one out of every nine WOW WDA residents is aged 66 to 84 years. By 2030, when the baby boomers reach this age, they will comprise almost one out of every five WDA residents.

Broad age group analysis of the WOW WDA shows that those aged 19 years and younger will increase in number by close to seven percent from 2005 to 2030. The number of those between 20 and 59 years, or the prime working years, will increase by about two percent. And the number of residents aged 60 years and older is projected to increase by 83 percent. From a compositional view, those aged 19 years and younger will decrease from 28 percent of the population in 2005 to 26 percent by 2030. Those in their main working years, 20 to 59 years of age, will decrease from 55 percent to 48 percent of the population. And the number of those aged 60 years and older will increase from 17 to 27 percent of all WOW WDA residents.

WOW WDA Labor Force Projections by Age



	2000	2010	2020
65+	10,508	14,617	20,648
55-65	36,356	54,524	63,899
35-54	165,652	163,843	146,212
25-34	57,604	58,778	70,105
16-24	43,280	52,267	50,017
Total	313,400	344,029	350,879
Decade change	**22.5%**	**9.8%**	**2.0%**

Source: DWD, Office of Economic Advisors, August 2004

The graph on the lower right of the previous page paints a scenario of what the projected WOW WDA labor force will look like—by age. This scenario assumes that current labor force participation rates by age, as measured by the U.S. Census, and incorporates 2012 national changes in participation projected by the U.S. Bureau of Labor Statistics. Crossing these labor force participation rates with population projections helps estimate the WDAs projected labor force. The labor force is projected to grow 12 percent from 2000 to 2020, which compared to other WDAs and statewide growth is slower than average growth. Its projected labor force growth is about equal to the growth of its population ages 16 and older (those whom are labor force eligible), but it does not account for qualitative changes that are likely in an aging labor force.

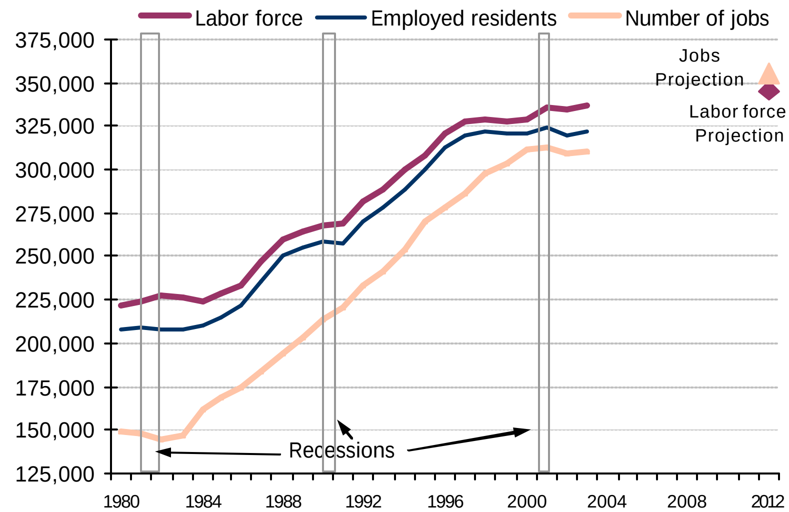
The slower labor force growth and older age composition will bring about a multitude of issues for workforce development. One issue is that there will be a shortage of younger workers "into the pipeline" to replace those leaving the workforce permanently or are progressing up the their career ladders. There are many occupations that are typically filled by younger workers, usually entry-level occupations. But there are other occupations typically requiring post-secondary/vocational education or a skill set that will need new (read: younger) workers such as nursing and various healthcare occupations. The loss of retiree institutional knowledge could also have quite an impact on the workforce.

The economy will change as the population ages meaning that the services and goods in demand will change as consumer behavior changes. There is no better example of this than the healthcare industry. An increase in age and an increased demand for healthcare services are highly, positively correlated, thus the need for more workers. Again, the very large, aging baby boomer population will affect employment in several industries just as they have influenced industries and culture in their younger years.

The graph on this page roughly compares historic and projected total nonfarm jobs in the WOW WDA to its historic and projected total labor force and number of employed (the employed are one of two components that make up the labor force; the unemployed are the other component). It shows the WDAs steady and overall growth over the last two and one-half decades in its number of jobs and employed residents, marked with a few periods of stagnation in the three recessions during this period. The current period is also flat as most would likely assume.

What may seem incongruous is the fact that the region has had a larger labor force than its total job count. The reason for this disparity was (and is) that a good portion of the WOW labor force works in the Milwaukee WDA. But the WOW job count is projected to grow faster than the labor force from 2002 to 2012, 15 percent vs. four percent. The labor force is projected to stand around 345,000 and the job count will finally outnumber the labor force at around 356,000.

Historic & Projected Labor Force & Jobs in WOW WDA



Source: WI DWD, Bureau of Workforce Information & Office of Economic Advisors

The number of jobs and workers are never matched 1:1 in any region, but this difference is quite large not to mention the growth rates being quite disparate as well. This is a reflection of the fact that job growth is following population growth and much of the fastest population growth is happening in a minority of counties, most of them included in metropolitan areas. It is common for metropolitan counties to have more jobs than labor force. Therefore, these jobs-dense counties need workers from adjacent counties to fill labor needs. In fact, employers in WOW counties are seeing an increase in the number of their workers traveling from Milwaukee despite Milwaukee's larger labor market.

The workforce development profiles are produced by the Office of Economic Advisors in the Wisconsin Department of Workforce Development. The author of this profile and regional contact for additional labor market information is:

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